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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,929	05/23/2001	Victor Wai Leung Lee	225133600014	9979

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02/26/2004

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EXAMINER

LAO, TIM P

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 02/26/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/863,929

Applicant(s)

LEE ET AL.

Examiner

Tim Lao

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karaorman et al. (US Patent 6,631,346 B1) in view of Kuhn et al. (US Patent 6,553,345 B1).

Claim 1

Karaorman et al. show:

a computer-implemented system for speech recognition of a user speech input that contains a request to be processed (see Abstract; col.2, ll.56-59), comprising:

a speech recognition engine (Fig.2: 26) that generates recognized words (string of words) from the user speech input; (col.2, ll.28-32)

a grammatical models data store (Knowledge Database, Fig.2: 63; Frame Data Structure, Fig.2: 64; Local Parser system, Fig.2: 60, see also Fig.4, 60) that contains word type data (e.g., frame data, col.3, ll. 27-38) and grammatical structure data (Grammar A & B, Fig.4: 140, 142), said word type data (e.g., frame data) containing usage data (e.g., whether a shirt is within a price range, col.4, ll.40-49) for pre-selected words (e.g., shirt, color, size, prices, col.3, ll.58-63), said grammatical structure data (Grammar A & B, Fig.2: 140, 142; col.6, ll.5-14) containing syntactic models (e.g., tree data with context sensitive information, Fig.2: (I) (II) ... (N), (I) (II) ... (M), col.5, ll.31-39) and probabilities of occurrence (i.e., N-best tags & scores, Fig.4: 160, 162, 164, 166; col.5, ll.39-42; col.6, ll.23-28) of the syntactic models with respect to exemplary user speech input (Fig.4: 118),

{1. The grammatical models data store can be viewed as a combination of the Knowledge Database 63 which encodes the word data from Frame Data Structure 64, and the Local

Parser 60 which contain Grammar A 140 & B 142, i.e., the grammatical structure data.

2. The pre-selected words, e.g., shirts, color, size, prices, contain context-sensitive information, i.e., they are used within the domain of purchasing merchandise. (col.3, ll.30-33)

3. Context information (Fig.2: 167) is used in N-best scoring. (col.6, ll.24-28)}

an understanding module (Fig.2: 28) connected to the grammatical recognition data store (Knowledge Database, Fig.2: 63; Frame Data Structure, Fig.2: 64; Local Parser system, Fig.2: 60, see also Fig.4, 60) and to the speech recognition engine (Fig.2: 26) that applies (col.3, ll.1-6, 19-25) the word type data (e.g., frame data from Frame Data Structure 64 that contains context-sensitive word usage) and the syntactic models (e.g., N-best candidates from the Local Parser 60) to the recognized words to select which of the syntactic models (e.g., N-best selection, Fig.4: 170, col.7, ll.11-24) is most likely to match syntactical structure of the recognized words,

{The speech understanding module also accesses the history data file 67 through the Dialog Manager 30 to fill in missing information for semantic interpretation of input speech. (col.4, ll.1-5)}

said selected syntactic model being used to process the request (e.g., to achieve a goal, i.e., the buyer's request; col.3, 24-25; col.47-49) of the user speech input.

Karaorman et al. do not show:

the pre-selected words are based upon the pre-selected words' usage on Internet web pages.

However, Kuhn et al. teach:

the pre-selected words (e.g., Please record Some Like It Hot, col.3, ll.25-28) are based upon the pre-selected words' usage (e.g., words used within the domain of command as in an electronic program guide, col.5, ll.15-21; col.4, ll.11-21) on Internet web pages.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the computer-implemented speech method of Karaorman et al. to include the pre-selected words usage from the internet as taught by Kuhn et al. in order to process the request of the user input speech based on word usage from the internet and N-

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	best candidates method. The motivation for combining the two arts would be to provide a robust speech recognition system (Karaorman et al., col.5, ll.10-19) that is available to mass users on the Internet.
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Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Documents:

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|---------------------|---------|---------------|
| [1] 6,233,561 B1 | 05/2001 | Junqua et al. |
| [2] 6,324,512 B1 | 11/2001 | Junqua et al. |
| [3] 2001/0041980 A1 | 11/2001 | Howard et al. |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Lao whose telephone number is 703-305-8955.


The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 703-305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Lao
Examiner
Art Unit 2655

TL
02/23/04


2/23/04
DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800